RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/521, 596A
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Date Processed by STIC:	1/30/05

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RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596A TIME: 16:46:07

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3 <110> APPLICANT: KAWAZU, YOICHI

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SUGIYAMA, KEITA
             MORIKAWA, TOSHIYUKI
             SASAYA, TAKAHIDE
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    14 <141> CURRENT FILING DATE: 2005-01-18
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RAW SEQUENCE LISTING DATE: 01/30/2005 PATENT APPLICATION: US/10/521,596A TIME: 16:46:07

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RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596A TIME: 16:46:07

Input Set : A:\PTO.YF.txt

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	Ala	Ala	Lvs	Val		Glu	Leu	Ile	Glu		Lvs	Ser	Leu	Thr		Asp	
171			-1-	100	1-				105	1	-1-			110			
	Gln	Asp	_	Ile	Gln	Lys	Val		Glu	Glu	Tyr	Val	_	Asn	Leu	Pro	
173	Arq	The	115	C1	Thr	Tree	Tura	120	Tuc	Clu	Tlo	Glu.	125	Tvc	Cvc	Dhe	
175	_	130	AIA	GIU	1111	ıyı	135	PIO	ьуѕ	Giu	TIE	140	116	цуѕ	Cys	FIIC	
	Lys		Val	Asp	Phe	Ser		Ser	Ser	Leu	Leu	Ser	Ser	Gly	Thr	Lys	
177	145	_		_		150					155					160	
	Ile	Leu	Asp	Ala	Ile	Leu	Tyr	Ser	Thr		Lys	Asp	Ser	Ala		His	
179					165		_		_	170	_	_			175	_	
	Asn	Phe	Ile		Asp	Val	Lys	Val		Ser	Pro	Asp	Phe		Asp	ser	
181	Lys	Len	Lou	180	Δαν	λεν	Tle	Gl.	185	Gly	Δευ	Δτα	Δla	190	Lve	Δla	
183	пур	₽Ġſſ	195	val	ASII	WOII	116	200	IIII	GIY	Mali	Arg	205	116	пуз	ura	
	Ala	Phe		Leu	Val	Tvr	Asn		Glv	Glv	Leu	Pro		Lys	Thr	Ser	
185		210	-1-				215		1	- 4		220		-1-		_	

RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596A TIME: 16:46:07

Input Set : A:\PTO.YF.txt

```
186 Glu Glu Arg Pro Leu Ser Lys Phe Val Arg Glu Thr Ile Phe Arg Glu
 187 225
                         230
 188 Lys Asp Leu Lys Ala Asn Glu Leu Cys Glu Tyr Leu Ser Ser Ala Asp
                     245
                                          250
 190 Pro Ser Leu Phe Pro Ser Gln Val Phe Leu Lys Ile Ser Leu Glu Asn
                 260
                                      265
                                                           270
 192 Leu Pro Thr Glu Val Ser Ser Arg Cys Lys Met Ser Ile Ala Gly Asn
                                  280
 194 Lys Ala Met Arg Tyr Ala Leu Leu Ala Gln Lys Phe Asp Lys Asp Glu
                              295
 196 Ile Pro Val Pro Thr Glu Val Asn Pro Thr Thr Ser Ser Glu Tyr Met
 197 305
                          310
. 198 Gln Lys Lys Glu Lys Ile Glu Lys Ala Lys Lys Ile Val Asp Val Leu
                     325
                                          330
 200 Cys Ser Leu Ala Ser Asp Phe Gln Ala Gln Val Lys Met His Pro Leu
                                      345
                 340
 202 Ser Pro Glu Arg Ser Ser Arg Lys Asn Phe Thr Leu Gln Leu Thr Ser
                                  360
 204 Ala Ile Val Thr Ser Leu Ser Tyr Lys Gly Arg Leu Asp Met Arg Lys
         370
                              375
 206 Ala Ile Glu Glu Lys Lys Ile Glu Ala Phe Lys Arg Asp Glu Asn Ile
                          390
                                              395
 208 Phe Gly Arg Leu Asn Ala Leu Gly Gln Pro Thr Phe Pro Val Leu Thr
                      405
                                          410
 210 Asn Ala Asp Ala Asp Phe Ser Glu Leu Ser Val Glu Ala Val Lys Thr
 211
                                      425
                 420
 212 Ala Tyr Gly Lys Lys
 213
             435
 216 <210> SEQ ID NO: 3
 217 <211> LENGTH: 6
 218 <212> TYPE: PRT
 219 <213> ORGANISM: mirafiori lettuce virus
 221 <400> SEQUENCE: 3
 222 Glu Gly Glu Thr Ala Ile
 223
       1
 226 <210> SEQ ID NO: 4
 227 <211> LENGTH: 6
 228 <212> TYPE: PRT
 229 <213> ORGANISM: mirafiori lettuce virus
 231 <400> SEQUENCE: 4
 232 Leu Pro Thr Glu Val Ser
 233
       1
 236 <210> SEQ ID NO: 5
 237 <211> LENGTH: 17
 238 <212> TYPE: DNA
 239 <213> ORGANISM: Artificial Sequence
 241 <220> FEATURE:
 242 <223> OTHER INFORMATION: Description of Artificial Sequence: an artificially
          synthesized primer sequence
```

DATE: 01/30/2005

TIME: 16:46:07

```
Input Set : A:\PTO.YF.txt
                     Output Set: N:\CRF4\01302005\J521596A.raw
     245 <220> FEATURE:
    246 <221> NAME/KEY: modified_base
     247 <222> LOCATION: (6)
     248 <223> OTHER INFORMATION: i
     250 <220> FEATURE:
     251 <221> NAME/KEY: modified base
     252 <222> LOCATION: (12)
     253 <223> OTHER INFORMATION: i
     255 <220> FEATURE:
   256 <221> NAME/KEY: modified base
     257 <222> LOCATION: (15)
     258 <223> OTHER INFORMATION: i
   . 260 <400> SEQUENCE: 5
                                                                             17
W--> 261 garggngara cngcnat
     264 <210> SEQ ID NO: 6
     265 <211> LENGTH: 17
     266 <212> TYPE: DNA
     267 <213> ORGANISM: Artificial Sequence
     269 <220> FEATURE:
     270 <223> OTHER INFORMATION: Description of Artificial Sequence: an artificially
               synthesized primer sequence
     273 <220> FEATURE:
     274 <221> NAME/KEY: modified base
     275 <222> LOCATION: (3)
     276 <223> OTHER INFORMATION: i
     278 <220> FEATURE:
     279 <221> NAME/KEY: modified_base
     280 <222> LOCATION: (9)
     281 <223> OTHER INFORMATION: i
     283 <220> FEATURE:
     284 <221> NAME/KEY: modified_base
     285 <222> LOCATION: (12)
     286 <223> OTHER INFORMATION: i
     288 <220> FEATURE:
     289 <221> NAME/KEY: modified base
     290 <222> LOCATION: (15)
     291 <223> OTHER INFORMATION: i
     293 <400> SEQUENCE: 6
                                                                             17
W--> 294 swnacytcng tnggnar
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/521,596A

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/30/2005 PATENT APPLICATION: US/10/521,596A TIME: 16:46:08

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\01302005\J521596A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 6,12,15 Seq#:6; N Pos. 3,9,12,15

VERIFICATION SUMMARY

DATE: 01/30/2005 PATENT APPLICATION: US/10/521,596A TIME: 16:46:08

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\01302005\J521596A.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number

L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/521,596
Source:	PU/10
Date Processed by STIC:	1/30/05
	,, ,

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596 TIME: 16:45:19

Input Set : A:\pto.yf.txt

Output Set: N:\CRF4\01302005\J521596.raw

```
3 <110> APPLICANT: National Agricultural Research Organization
     5 <120> TITLE OF INVENTION: Nucleic acids encoding mirafiori lettuce viral proteins and
utilization
     6
             thereof.
     8 <130> FILE REFERENCE: ARO-A0202P
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/521,596
C--> 10 <141> CURRENT FILING DATE: 2005-01-18
    10 <150> PRIOR APPLICATION NUMBER: JP 2002-209805
   · 11 <151> PRIOR FILING DATE: 2002-07-18
    13 <160> NUMBER OF SEQ ID NOS: 6
    15 <170> SOFTWARE: PatentIn Ver. 2.1
   - 17 <210> SEQ ID NO: 1
    18 <211> LENGTH: 1514
    19 <212> TYPE: DNA
     20 <213> ORGANISM: mirafiori lettuce virus
    22 <220> FEATURE:
    23 <221> NAME/KEY: CDS
    24 <222> LOCATION: (87)..(1400)
    26 <400> SEQUENCE: 1
    27 gattattttt taaaaatata acaagctcat aagaaaacaa cttctccact caaaagtgaa 60
    29 tottttcaaa gaaaaacaaa gtoaca atg toa gga gta tac aag gtt too gga 113
                                    Met Ser Gly Val Tyr Lys Val Ser Gly
    30
     31
     33 att cag tot ato ttg caa aaa gat gtg act too gaa gga gaa aca got
                                                                        161
     34 Ile Gln Ser Ile Leu Gln Lys Asp Val Thr Ser Glu Gly Glu Thr Ala
                                                20
                                                                         209
     37 att cta att tct ctt ggt ctc atg aca aaa gaa gag aag cct gtt cct
     38 Ile Leu Ile Ser Leu Gly Leu Met Thr Lys Glu Glu Lys Pro Val Pro
     41 gca aaa atg gcc atg gtg gca tct gca aaa gca aac tca atc atc ttt
                                                                         257
    42 Ala Lys Met Ala Met Val Ala Ser Ala Lys Ala Asn Ser Ile Ile Phe
                                        50
    43
                    45
     45 gtt tcg gaa gat ggc tct ttg tct ttt gaa gct cca aaa gaa aca gga
                                                                         305
     46 Val Ser Glu Asp Gly Ser Leu Ser Phe Glu Ala Pro Lys Glu Thr Gly
                60
                                    65
                                                                        353
     50 Glu Thr Ser Lys Pro Gly Glu Lys Lys Glu Glu Lys Lys Val Glu Val
                                80
                                                                         401
     53 gga gtc aag ttt cct ttc agc gca gcc aaa gta aag gag cta att gaa
    54 Gly Val Lys Phe Pro Phe Ser Ala Ala Lys Val Lys Glu Leu Ile Glu
    55 90
                            95
     57 ggg aaa agt ctt act ttg gat cag gac aaa atc caa aaa gtg ctg gaa
                                                                         449
    58 Gly Lys Ser Leu Thr Leu Asp Gln Asp Lys Ile Gln Lys Val Leu Glu
```

115

120

110

59

RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596 TIME: 16:45:19

Input Set : A:\pto.yf.txt

61 gaa tat gtt aag aat ttg cca agg act gct gag act tac aaa cca	
62 Glu Tyr Val Lys Asn Leu Pro Arg Thr Ala Glu Thr Tyr Lys Pro 163 125 . 130 135	Lys
65 gag att gag atc aaa tgt ttc aag ggt gtt gac ttc agt ata agc	aqt 545
66 Glu Ile Glu Ile Lys Cys Phe Lys Gly Val Asp Phe Ser Ile Ser	_
67 140 145 150	
69 ttg ctt tct tca ggg acc aaa atc tta gat gct att ctt tac agt	
70 Leu Leu Ser Ser Gly Thr Lys Ile Leu Asp Ala Ile Leu Tyr Ser	Thr
71 155 160 165	cta 641
73 tac aag gat tca gca gag cac aac ttc ata ttt gat gtg aaa gtt o 74 Tyr Lys Asp Ser Ala Glu His Asn Phe Ile Phe Asp Val Lys Val I	
· · · · · · · · · · · · · · · · · · ·	185
77 tot cot gat the ate gat age aag tha one gtg aac aac ate gaa	aca 689
78 Ser Pro Asp Phe Ile Asp Ser Lys Leu Leu Val Asn Asn Ile Glu	Thr
79 190 195 200	
81 ggc aat cga gca atc aaa gca gct ttc tgt ctt gtt tac aat caa	
82 Gly Asn Arg Ala Ile Lys Ala Ala Phe Cys Leu Val Tyr Asn Gln	GIÀ
83 205 210 215 85 gga ttg cca tca aag acg agt gaa gaa cga cca cta tct aag ttt g	gta 785
86 Gly Leu Pro Ser Lys Thr Ser Glu Glu Arg Pro Leu Ser Lys Phe	_
87 220 225 230	
89 aga gaa acg ata ttc cgt gag aaa gat ctc aaa gct aac gag tta	tgt 833
90 Arg Glu Thr Ile Phe Arg Glu Lys Asp Leu Lys Ala Asn Glu Leu	Cys
91 235 240 245	
93 gaa tat ctg tca tca gca gat cct tct ttg ttt cca agt caa gtc 94 Glu Tyr Leu Ser Ser Ala Asp Pro Ser Leu Phe Pro Ser Gln Val	
	265
97 ttg aaa atc tca ctt gaa aac ctt cct act gag gtt tca tca cgt	
98 Leu Lys Ile Ser Leu Glu Asn Leu Pro Thr Glu Val Ser Ser Arg	
99 270 275 280	
101 aag atg tcg att gcg ggc aac aaa gca atg aga tat gca ctc tta	
102 Lys Met Ser Ile Ala Gly Asn Lys Ala Met Arg Tyr Ala Leu Leu 103 285 290 295	Ala
103 285 290 295 105 caa aag ttt gac aaa gat gaa att cca gtt cca aca gaa gtg aat	cct 1025
106 Gln Lys Phe Asp Lys Asp Glu Ile Pro Val Pro Thr Glu Val Asn	
107 300 305 310	
109 aca act agc tca gaa tac atg cag aaa aag gag aaa ata gaa aaa	gca 1073
110 Thr Thr Ser Ser Glu Tyr Met Gln Lys Lys Glu Lys Ile Glu Lys	Ala
111 315 320 325	1101
113 aaa aag ata gtt gat gtt cta tgt tct ctt gct tct gac ttc cag	gca 1121
114 Lys Lys Ile Val Asp Val Leu Cys Ser Leu Ala Ser Asp Phe Gln 115 330 335 340	345
117 caa gtg aaa atg cat cct ctc tcc cct gag aga tca tcg agg aag	
118 Gln Val Lys Met His Pro Leu Ser Pro Glu Arg Ser Ser Arg Lys	
119 350 355 360	
121 ttc act ctg caa ttg act tct gca att gtt act tca ctt tcc tac	
122 Phe Thr Leu Gln Leu Thr Ser Ala Ile Val Thr Ser Leu Ser Tyr	Lys
123 365 370 375	aat 1065
125 ggg agg tta gac atg aga aaa gca atc gaa gag aaa aag ata gag	gct 1265

RAW SEQUENCE LISTING DATE: 01/30/2005 PATENT APPLICATION: US/10/521,596 TIME: 16:45:19

Input Set : A:\pto.yf.txt

126	Gly	Arg	Leu	Asp	Met	Arg	Lys	Ala	Ile	Glu	Glu	Lys	Lys	Ile	Glu	Ala	
127			380					385					390				
								ttt									1313
130	Phe	Lys	Arg	Asp	Glu	Asn	Ile	Phe	Gly	Arg	Leu	Asn	Ala	Leu	Gly	Gln	
131		395					400					405					
								aac									1361
134	Pro	Thr	Phe	Pro	Val	Leu	Thr	Asn	Ala	Asp	Ala	Asp	Phe	Ser	Glu	Leu	
	410					415					420					425	
137	tca	gtt	gag	gcc	gtg	aag	aca	gct	tac	gga	aag	aaa	tga	gggg	cagaa	atc	1410
138	Ser	Val	Glu	Ala	Val	Lys	Thr	Ala	Tyr	Gly	Lys	Lys					
139					430					435							
141	ggagtgaata gtgaagaatg tggaattgtg gacagatttg cttttttccg cttatccttt																
143	gcga	atago	gga g	gtate	gtgaa	ac to	gatag	gtttt	aat	aaaa	aaac	tato	2				1514
146	<210)> SI	EQ II	ON C	: 2												
147	<211	L> LI	ENGT	1: 43	37												
148	<212	2> T	PE:	PRT													
149	<213	3 > OI	RGAN	ISM:	mira	afion	ri le	ettu	ce v	irus							
			EQUE														
152	Met	Ser	Gly	Val	Tyr	Lys	Val	Ser	Gly	Ile	Gln	Ser	Ile	Leu	Gln	Lys	
153	1				5					10					15		
154	Asp	Val	Thr	Ser	Glu	Gly	Glu	Thr	Ala	Ile	Leu	Ile	Ser	Leu	Gly	Leu	
155				20					25					30			
156	Met	Thr	Lys	Glu	Glu	Lys	Pro	Val	Pro	Ala	Lys	Met	Ala	Met	Val	Ala	
157			35					40					45				
158	Ser	Ala	Lys	Ala	Asn	Ser	Ile	Ile	Phe	Val	Ser	Glu	Asp	Gly	Ser	Leu	
159		50					55					.60					
160	Ser	Phe	Glu	Ala	Pro	Lys	Glu	Thr	Gly	Glu	Thr	Ser	Lys	Pro	Gly	Glu	
161	65					70					75					80	
	Lys	Lys	Glu	Glu	Lys	Lys	Val	Glu	Val	Gly	Val	Lys	Phe	Pro		Ser	
163					85					90					95		
164	Ala	Ala	Lys		Lys	Glu	Leu	Ile		Gly	Lys	Ser	Leu		Leu	Asp	
165				100					105					110			
	Gln	Asp	Lys	Ile	Gln	Lys	Val	Leu	Glu	Glu	Tyr	Val		Asn	Leu	Pro	
167			115					120		_		_	125		_		
	Arg		Ala	Glu	Thr	Tyr	_	Pro	Lys	Glu	Ile		Ile	Lys	Cys	Phe	
169		130					135					140				_	
	-	Gly	Val	Asp	Phe		Ile	Ser	Ser	Leu		Ser	Ser	Gly	Thr		
	145			_	_	150					155		_	_ •		160	
	Ile	Leu	Asp	Ala		Leu	Tyr	Ser	Thr		Lys	Asp	Ser	Ala		His	
173					165	_				170					175		
	Asn	Phe	Ile		Asp	Val	Lys	Val		Ser	Pro	Asp	Phe		Asp	Ser	
175				180					185		_			190	_		
	Lys	Leu		Val	Asn	Asn	Ile	Glu	Thr	Gly	Asn	Arg		Ile	Lys	Ala	
177			195		_			200					205	_		_	
	Ala		Cys	Leu	Val	Tyr		Gln	Gly	Gly	Leu		Ser	Lys	Thr	Ser	
179		210					215				_	220	_				
		Glu	Arg	Pro	Leu		Lys	Phe	Val	Arg		Thr	Ile	Phe	Arg		
	225					230					235					240	
182	Lys	Asp	Leu	Lys	Ala	Asn	Glu	Leu	Cys	Glu	Tyr	Leu	Ser	Ser	Ala	Asp	

RAW SEQUENCE LISTING DATE: 01/30/2005
PATENT APPLICATION: US/10/521,596 TIME: 16:45:19

Input Set : A:\pto.yf.txt

```
245
                                         250
                                                              255
184 Pro Ser Leu Phe Pro Ser Gln Val Phe Leu Lys Ile Ser Leu Glu Asn
                                     265
                                                         270
                260
186 Leu Pro Thr Glu Val Ser Ser Arg Cys Lys Met Ser Ile Ala Gly Asn
            275
                                280
188 Lys Ala Met Arg Tyr Ala Leu Leu Ala Gln Lys Phe Asp Lys Asp Glu
        290
                            295
                                                 300
190 Ile Pro Val Pro Thr Glu Val Asn Pro Thr Thr Ser Ser Glu Tyr Met
                        310
                                             315
191 305
192 Gln Lys Lys Glu Lys Ile Glu Lys Ala Lys Lys Ile Val Asp Val Leu
                    325
                                         330
194 Cys Ser Leu Ala Ser Asp Phe Gln Ala Gln Val Lys Met His Pro Leu
195
                340
                                     345
196 Ser Pro Glu Arg Ser Ser Arg Lys Asn Phe Thr Leu Gln Leu Thr Ser
                                360
198 Ala Ile Val Thr Ser Leu Ser Tyr Lys Gly Arg Leu Asp Met Arg Lys
                            375
200 Ala Ile Glu Glu Lys Lys Ile Glu Ala Phe Lys Arg Asp Glu Asn Ile
201 385
                        390
202 Phe Gly Arg Leu Asn Ala Leu Gly Gln Pro Thr Phe Pro Val Leu Thr
                    405
                                         410
204 Asn Ala Asp Ala Asp Phe Ser Glu Leu Ser Val Glu Ala Val Lys Thr
                                     425
                420
206 Ala Tyr Gly Lys Lys
207
            435
210 <210> SEQ ID NO: 3
211 <211> LENGTH: 6
212 <212> TYPE: PRT
213 <213> ORGANISM: mirafiori lettuce virus
215 <400> SEQUENCE: 3
216 Glu Gly Glu Thr Ala Ile
217
      1
220 <210> SEQ ID NO: 4
221 <211> LENGTH: 6
222 <212> TYPE: PRT
223 <213> ORGANISM: mirafiori lettuce virus
225 <400> SEQUENCE: 4
226 Leu Pro Thr Glu Val Ser
227 1
230 <210> SEQ ID NO: 5
231 <211> LENGTH: 17
232 <212> TYPE: DNA
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: Description of Artificial Sequence: an artificially
         synthesized primer sequence
239 <220> FEATURE:
240 <221> NAME/KEY: modified base
241 <222> LOCATION: (6)
```

DATE: 01/30/2005

```
PATENT APPLICATION: US/10/521,596
                                                              TIME: 16:45:19
                     Input Set : A:\pto.yf.txt
                     Output Set: N:\CRF4\01302005\J521596.raw
     242 <223> OTHER INFORMATION: i
     244 <220> FEATURE:
     245 <221> NAME/KEY: modified base
     246 <222> LOCATION: (12)
     247 <223> OTHER INFORMATION: i
     249 <220> FEATURE:
     250 <221> NAME/KEY: modified base
     251 <222> LOCATION: (15)
     252 <223> OTHER INFORMATION: i
     254 <400> SEQUENCE: 5
                                                                             17
W--> 255 garggngara cngcnat
     258 <210> SEQ ID NO: 6
     259 <211> LENGTH: 17
     260 <212> TYPE: DNA
     261 <213> ORGANISM: Artificial Sequence
     263 <220> FEATURE:
     264 <223> OTHER INFORMATION: Description of Artificial Sequence:an artificially
     265
              synthesized primer sequence
     267 <220> FEATURE:
     268 <221> NAME/KEY: modified base
   . 269 <222> LOCATION: (3)
     270 <223> OTHER INFORMATION: i
     272 <220> FEATURE:
     273 <221> NAME/KEY: modified base
     274 <222> LOCATION: (9)
     275 <223> OTHER INFORMATION: i
     277 <220> FEATURE:
     278 <221> NAME/KEY: modified base
     279 <222> LOCATION: (12)
     280 <223> OTHER INFORMATION: i
     282 <220> FEATURE:
     283 <221> NAME/KEY: modified base
     284 <222> LOCATION: (15)
     285 <223> OTHER INFORMATION: i
     287 <400> SEQUENCE: 6
                                                                             17
W--> 288 swnacytcng tnggnar
```

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 01/30/2005 PATENT APPLICATION: US/10/521,596 TIME: 16:45:20

Input Set : A:\pto.yf.txt

Output Set: N:\CRF4\01302005\J521596.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 6,12,15 Seq#:6; N Pos. 3,9,12,15 VERIFICATION SUMMARY

DATE: 01/30/2005

PATENT APPLICATION: US/10/521,596

TIME: 16:45:20

Input Set : A:\pto.yf.txt

Output Set: N:\CRF4\01302005\J521596.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0 L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0